

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

ENTROPIC COMMUNICATIONS, LLC,

*Plaintiff,*

v.

CHARTER COMMUNICATIONS, INC.,

*Defendant.*

Case No. 2:22-cv-00125-JRG

**JURY TRIAL DEMANDED**

**PLAINTIFF ENTROPIC COMMUNICATIONS, LLC'S SUR-REPLY IN  
OPPOSITION TO DEFENDANT CHARTER COMMUNICATIONS, INC.'S  
MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE  
ASSERTED CLAIMS OF U.S. PATENT NO. 9,210,362**

## I. INTRODUCTION

Entropic Communications, LLC (“Entropic”) submits this sur-reply in opposition to Charter Communications, Inc.’s (“Charter”) Motion for Summary Judgment of Invalidity of the Asserted Claims of U.S. Patent No. 9,210,362 (“’362 Patent”) (the “Motion”) (Dkt. 173).

## II. RESPONSE TO STATEMENT OF UNDISPUTED MATERIAL FACTS (“SUF”)

Charter’s Reply attempts to explain away the multitude of genuine disputes of material fact identified in Entropic’s Opposition by assuring the Court that Entropic’s disputes aren’t genuine. *See* Dkt. 228 at 1-6. But Charter’s *six pages* of responses to the facts Entropic disputes only underscores that the opposite is true. To prove invalidity, Charter must prove each and every element is anticipated and/or obvious from the prior art, but several elements are very much in dispute, the subject of extensive and conflicting opinions by the parties’ respective experts. The following facts addressed in Charter’s Reply highlight the disputes between the parties that preclude summary judgment of invalidity:

SUF 4. Entropic’s Opposition explained exactly why SUF 4 is disputed: Charter has mischaracterized the cited portion of the ’362 Patent specification. Charter alludes to the problems of the prior art and cites to the ’362 as authority for its proposition, but its citation does not support the fact which Charter says is material to the resolution of its Motion.

SUF 5. Charter’s Reply mischaracterizes Entropic’s Opposition and furthermore makes bold assertions about “[t]he described invention” without any citation. *See* Dkt. 207 at 2.

SUF 6. Charter’s Reply fails to engage with the issue identified by Entropic’s Opposition: Charter’s SUF 6 makes assertions about the ’362 Patent’s specification and mischaracterizes Figure 2 of the ’362 Patent *without any citations*. Charter’s Reply brief similarly contains no citation to support SUF 6 and does not erase the genuine dispute.

SUF 7. Charter's Reply identifies only a narrow portion of SUF 7 that it says Entropic does not dispute and fails to address the remaining facts and issues in SUF 7 that Entropic disputed, with citation to extensive evidence. Indeed, Charter's Reply does not contest that it has attempted to generalize Figure 2 of the '362 Patent to all other embodiments of the '362 Patent's specification without undertaking sufficient analysis. *Compare* Dkt. 207 at 3 *with* Dkt. 228 at 1.

SUFs 8-11. Charter's Reply in support of SUF 8-11 does not rectify the errors of its Motion in mischaracterizing portions of the '362 Patent's specification, offering little or no support in doing so, and generalizing just one figure of the '362 Patent to all embodiments of the '362 Patent. *See* Dkt. 228 at 1-2. The disputes identified in Entropic's Opposition remain unresolved.

SUF 14. Charter's Reply in support of SUF 14, like many others, attempts to turn the burden of proof for a motion for summary judgment regarding invalidity on its head by suggesting that it is *Entropic* that is required to make certain evidentiary showings. It is not Entropic's burden to identify embodiments of the '362 Patent that digitize a signal before that signal has been transformed into I and Q signals because this is Charter's motion and Charter's burden. *See* authorities cited in Dkt. 207 at 11-12. Charter's Reply, just like its Motion, generalizes Figure 2 of the '362 Patent to all embodiments and then creates an imaginary claim limitation (transformation into I and Q signals after digitization) without any support. It is Charter's burden to examine each embodiment of the '362 Patent and similarly Charter's burden to explain why this imaginary claim limitation is relevant to the '362 Patent's validity. Charter's SUF 14 (and Reply in support thereof) fails to do either.

SUF 17. Charter's Reply again fails to engage with Entropic's point: Charter has failed to demonstrate that it is proper to generalize Figure 2 of the '362 Patent to all embodiments of the '362 Patent. Charter's Reply in support of SUF 17 does not address this issue, nor does it offer any

evidence to the contrary.

SUF 18. Charter's Reply does not remedy the flaws of its Motion's SUF 18. Instead, Charter merely asserts that the evidence cited by Entropic disputing SUF 18 is irrelevant, which is insufficient.

SUF 19. Just like Charter's Motion, its Reply fails to provide any evidence or citation in support of SUF 19, and therefore Charter has failed to meet its burden in the face of Entropic's dispute.

SUF 21. *See supra* SUF 17.

SUF 22. Charter fails to address Entropic's issue here—Charter relies upon highly misleading and plainly erroneous characterizations of the evidence, as discussed in Entropic's Opposition. *See* Dkt. 207 at SUF 22.

SUF 24. *See supra* SUF 17.

SUF 26. Charter's Motion failed to cite any evidence in support of its argumentative SUF 26, which Entropic disputes. Charter's Reply *again* provides no evidence, instead seeking to invert the burden of proof. *See* authorities cited in Dkt. 207 at 11-12.

SUF 27. Charter's Reply in support of SUF 27 does not address its misstatement of Dr. Kramer's testimony or the dispute identified by Entropic's explanation of the import of Charter misstating the cited testimony.

SUF 28. *See supra* SUF 27.

SUF 29. Charter does not dispute the additional context provided in Entropic's response to SUF 29.

SUF 30. Charter does not rectify the error in its Motion's SUF 30 - the incorrect identification of the disclosed invention of Zhang.

SUF 32. Entropic disputes the characterization of the quoted passage, not the arithmetic recited. Charter's Reply does not address Entropic's primary dispute regarding SUF 32.

SUF 35. Charter never addresses the primary dispute. As identified and supported with evidence in its Opposition, Entropic disputes that the plain meaning of the claim term "downconverting" in the '362 Patent is "shifting a signal to a lower frequency band" as alleged by Charter.

SUF 37. Charter erroneously states that Entropic's dispute of SUF 37 relies on no evidence. This is incorrect. *See* Dkt. 207 at SUF 37, citing to testimony of Dr. Kramer. Charter does not and cannot explain why the conflicting opinions of the parties' experts do not generate a genuine dispute of material fact.

SUF 39. Again, contrary to Charter's assertion, Entropic does support the disputed nature of SUF 39 with evidence. *See* Dkt. 207 at SUF 39, citing to Zhang and Dr. Kramer's report.

SUF 43. Charter fails to address the primary dispute identified by Entropic, which is that Charter has mischaracterized the supposed benefits of Zhang and the '362 Patent.

SUF 45. Charter's characterization of Dr. Kramer's opinions regarding Zhang as "irrelevant" only underscores the dispute. Entropic has identified evidence that conflicts with the statement made in SUF 45. Whether the dispute and the experts' conflicting opinions are relevant to the issue of whether Zhang discloses the channel selection step of the '362 Patent is itself a question for the trier of fact.

SUF 46. Charter fails to engage with or explain why the dispute Entropic identified is not an actual dispute. Entropic identifies a dispute that is highly relevant in at least a factual context. *See* Dkt. 207 at SUF 46.

SUF 47. Given Charter's argument and characterization of this SUF in reply, any point

not in dispute between the parties is legally irrelevant to the motion because it does not bear on whether Zhang discloses claim 11 of the '362 Patent. Beyond that point, Entropic disputes SUF 47 in part as discussed in its Opposition.

SUF 53. Charter resorts to citing a portion of Dr. Kramer's transcript taken out of context without also citing to the portion of the transcript wherein Dr. Kramer answers the ultimate question of whether the serial interface in claim 12 of the '362 Patent can be implemented according to commonly known methods for such interfaces. *See* Dkt. 207 at 10. Charter's citation to Dr. Kramer's transcript relates to a different question that does not support the assertion made. Dr. Kramer's testimony speaks for itself and is in direct contradiction to Charter's SUF 53.

SUFs 57-59. Charter's Reply now cites to Favrat rather than merely its own expert for SUF 57, but its citation does not actually support the assertion made in its Motion at SUF 57. *Compare* Dkt. 173 at 8 *with* Dkt. 228 at 6. Charter's assertion in SUF 57 of its original Motion that "[i]n Favrat, when the output is digital, it employs a serial interface to transmit the digital datastream" is a characterization made by Dr. Goldberg, *not* Favrat itself. Charter now claims in Reply that SUF 57 is "taken directly from Favrat." This is all very much in dispute, as the citations to Dr. Kramer's report in Entropic's opposition to SUF 57 illustrate. *See* Dkt. 207, Ex. A, Kramer Rep. ¶¶ 134; 129–135. (addressing Dr. Goldberg's characterization of Favrat, incorporated into Charter's SUF 57). All of this merely emphasizes the genuine dispute.

With respect to SUF 58 and SUF 59, Charter does not engage with the disputes identified in Entropic's response, which contain issues similar to SUF 57.

### **III. ARGUMENT**

#### **A. Charter's Section 112 Argument Relies on Misstated Law and Disputed Facts**

Charter's written description and enablement arguments on reply are again detached from

the law and rely on hotly disputed facts that preclude a grant of summary judgment.

First, Charter fails to engage with the law discussed in Entropic's Opposition or acknowledge that its Motion misstated and blended together the tests for written description and enablement. As to enablement, Charter bears the burden of proof on this issue. And "[t]o prove that a claim is invalid for lack of enablement, [Charter] must show by clear and convincing evidence that a person of ordinary skill in the art would not be able to practice the claimed invention without 'undue experimentation'" if given the patent. *Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.*, 928 F.3d 1340, 1345–46 (Fed. Cir. 2019). Charter's Reply, just like its Motion, fails to provide any evidence or analysis (much less undisputed evidence) regarding whether a person of skill given the disclosure of the '362 Patent would have to engage in undue experimentation to practice the full scope of the claims. Indeed, Charter does not even discuss the multi-factor test under which courts examine that issue. *Id.* There is nothing in the record that would allow, much less compel, a conclusion that a person of skill would require undue experimentation to practice the claims of the '362 Patent in a manner where the "digitizing" step occurred before the "downconverting" one.

With respect to written description, Dr. Kramer clearly opined that at least the embodiment in Figure 4 of the '362 Patent digitizes the incoming signal and then downconverts it. *See* Dkt. 207, Ex. A, Kramer Rep. ¶ 170. This matches the scope of the claims as construed by the Court, which ruled that these two steps can be performed in any order. *See* Dkt. 207 at 14-15. There is thus, at a minimum, a dispute between the experts as to whether this disclosure would convey to a POSITA that the inventors were in possession of the full scope of the claims, which precludes granting summary judgment. Charter further ignores the test for written description, which only requires a "constructive reduction to practice." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d

1336, 1532 (Fed. Cir. 2010) (en banc); *see also Centrak, Inc. v. Sonitor Technologies, Inc.*, 915 F.3d 1360 at 1366 (Fed. Cir. 2019) (agreeing with *Ariad*, finding a material dispute as to written description, and noting that “the fact that the bulk of the specification discusses [one exemplary embodiment] does not necessarily mean that the inventors did not also constructively reduce to practice [an alternative embodiment]”). Furthermore, “written description is about whether the skilled reader of the patent disclosure can recognize that what was claimed corresponds to what was described; it is not about whether the patentee has proven to the skilled reader that the invention works, or how to make it work, which is an enablement issue.” *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1191 (Fed. Cir. 2014).

Nonetheless, Charter’s Reply further rehashes the arguments of its Motion without any additional explanation. Charter again fails to explain why phase shifting into I and Q signals before digitization is relevant to whether there is sufficient written description or enablement for digitizing before downconversion. Charter has not demonstrated that phase shifting a signal into I and Q signals equates to or requires downconversion, and therefore the issue is irrelevant to the ’362 Patent’s validity. Further, Charter’s complaint that the ’362 Patent does not describe an embodiment in which *no* downconversion occurs before digitization is a red herring. The claims as construed do not require that the recited downconverting step be the *first* or *only* downconversion of the signal, as Charter appears to assume. Entropic has demonstrated that Figure 4 of the ’362 Patent shows downconversion after digitization, and thus the written description and enablement requirements are satisfied. *See* ’362 Patent at Fig. 4; *see also* Dkt. 207 at 14-15 (discussing Figure 4).

Charter further relies on a variety of disputed facts that preclude summary judgment, even assuming Charter had applied the proper legal tests to those facts. *See supra* SUFs 4–11, 13, 14,



16–19, 21, 22, 24, 26–28. For example, Charter’s Motion relies on disputed SUF 18 relating to transformation of a signal into I and Q components, which is merely a battle of the experts in light of the evidence cited for and against SUF 18 in the Motion and Opposition respectively. *Compare* Dkt. 173 at SUF 18 *with* Dkt. 207 at SUF 18. Charter similarly relies on SUF 26, for which it cited no evidence, and to which Entropic responded with competent evidence from Dr. Kramer’s report. *Compare* Dkt. 173 at SUF 26 *with* Dkt. 207 at SUF 26. As explained by Entropic’s Opposition and Dr. Kramer’s report, the ’362 Patent specifically discloses embodiments wherein downconversion occurs after digitization, which is all that is needed to both provide adequate written description and enablement for claim 11. *See* Dkt. 207 at 14-15. As such, Charter cannot meet its burden to show that the patent is invalid by clear and convincing evidence, and summary judgment must be denied.

**B. Charter’s Section 102 And 103 Argument Commits the Same Errors As Its Motion**

Charter overstates its position, fails to rectify the disputes of fact relied upon by its Motion, and does not meaningfully address Entropic’s analysis of Zhang. Charter’s Motion must be denied.

Charter points out that Dr. Kramer’s report does not discuss any multipliers allegedly disclosed by Zhang. Given Charter’s own scattershot and legally flawed analysis by Dr. Goldberg (discussed at Dkt. 207 at 20-21), there was no need for Dr. Kramer to take further aim at the point. Still, Charter asked about both concepts generally *at length* in Dr. Kramer’s deposition and received answers that confirm Dr. Kramer, like Dr. Goldberg, does not supply Charter with the clear and convincing evidence it needs. Indeed, Charter seems to forget that the patent is presumed valid and it is Charter who bears the burden to show otherwise by clear and convincing evidence. Entropic is entitled to attack the efforts by Charter’s expert, Dr. Goldberg, to meet this burden with respect to the “mixer” element, even if Dr. Kramer did not discuss it in his report. Charter cannot

overcome its own critical lack of proof on this element and fails to engage with the analysis of Zhang’s lack of a mixer presented in Entropic’s Opposition. *See* Dkt. 207 at 20-21.<sup>1</sup> Accordingly, summary judgment must be denied here.

Charter similarly cannot overcome the plethora of disputed facts its Motion relies upon relating to the “selecting” step of claim 11 and the entirety of claim 12 of the ’362 Patent. Indeed, as Charter’s *own Motion* identified, there is a direct factual conflict between Dr. Goldberg’s and Dr. Kramer’s opinions as to whether Zhang discloses this step. *See* Dkt. 173 at 30. This competing expert testimony is enough to defeat summary judgment. Perhaps recognizing this, in its reply, Charter instead tries to revisit the ’362 Patent’s disclosure and abandons citations to either Zhang or its expert. But in doing so, Charter implicitly relies on the same disputed facts regarding the characterization of the ’362 patent. *See* SUF 39, 43, 45-47, 53, 57-59, all of which are disputed. For example, Charter’s Motion and Reply rely on SUF 57-59 regarding the serial interface of the ’362 Patent and Dr. Goldberg’s expert opinion that Favrat discloses claim 12 of the ’362. *See* Motion at SUF 57-59. Entropic presented extensive evidence disputing SUF 57-59, which in turn created genuine disputes that preclude summary judgment. *See* Dkt. 207 at SUF 57-59.

Charter’s suggestion that Entropic is arguing “that claim 11 requires processing the entire television spectrum of 1GHz” makes a strawman of Entropic’s argument. Dkt. 228 at 9. Entropic argues no such thing, but instead, cites to the language of the ’362 Patent requiring processing of both desired and undesired channels (*i.e.*, all channels). Charter’s Reply, like its Motion, fails to

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<sup>1</sup> In contrast, summary judgment is appropriate in Entropic’s favor in its co-pending motion for summary judgment of no invalidity. The lack of proof of any mixer element in Zhang is legally sufficient to eliminate invalidity. *See* Dkt. 170 at 10-15. Charter can win only with proof on each and every element, and here there are still a variety of genuine disputes of material fact relating to *other* aspects of Charter’s invalidity arguments over Zhang, precluding any summary judgment in Charter’s favor.

explain how the processing of all desired and undesired channels is disclosed by Zhang. Similarly, Charter's Reply fails to show how the entirety of claim 12 is met, instead focusing only on the "serial interface" portion of the claim. Claim 12 of the '362 is not reducible to merely a serial interface, and Charter's citation to one line of the '362 specification does not explain how Zhang discloses claim 12 (which is more than just a serial interface). Zhang fails to disclose the Asserted Claims of the '362 Patent, and Charter has failed show otherwise by clear and convincing evidence.

#### IV. CONCLUSION

For the reasons discussed above, Charter's Motion should be denied.

Dated: October 10, 2023

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a) and served via the Court's CM/ECF system on all counsel of record on this 10th day of October, 2023.

/s/ James A. Shimota  
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